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Before the
FEDERAL COMMUNICATIONS COMMISSION
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OFFICE OF SECRETARY

In the Matter of	)	
	)	
Federal-State Joint Board on	)	CC Docket No. 96-45
Universal Service	)	

REPLY COMMENTS OF U S WEST, INC.
TO RECOMMENDED DECISION

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U S WEST, Inc. ("U S WEST") submits its Reply Comments to the Recommended Decision issued by the Federal-State Joint Board ("Joint Board") on November 8, 1996.[1]

I. INTRODUCTION AND SUMMARY

The Federal Communications Commission ("Commission") has acknowledged that the proceedings involving interconnection, universal service, and access reform form a trilogy of regulatory jurisprudence and that all three are intertwined from both policy and economic perspectives. For independent local exchange carriers ("ILEC"), capital recovery is also a significant constitutional issue in all three.

In this proceeding, the selection of a cost proxy model for the development of universal service support mechanisms has a direct bearing on these policy, economic, and constitutional considerations. In both the design and its inputs, the Hatfield Model is inherently flawed and should be rejected. It does not permit

[1] In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45, Recommended Decision, FCC 96J-3, rel. Nov. 8, 1996 ("Recommended Decision").

ILECs to recover their prudently incurred expenses and to earn a reasonable return on their investments used in fulfilling their regulatory obligations.

The Commission should adopt a unified interstate and intrastate fund and an assessment mechanism which allows carriers to recover their contributions to the fund through a surcharge on the retail revenues collected from end-user subscribers. Such an approach would be straightforward and competitively neutral.

The Commission should reject the suggestion of some that yellow pages revenues should be imputed to ILECs to reduce their Universal Service Fund ("USF") support requirements. The suggestion is at odds with publishing reality in the business world and with the Constitution.

II. THE COMMISSION MUST MAKE PROVISION FOR ILEC CAPITAL RECOVERY WHEN IT DEVELOPS UNIVERSAL SERVICE SUPPORT MECHANISMS IN THIS PROCEEDING

In the First Report and Order in the Local Interconnection Docket, the Commission said:

> We acknowledge that some incumbent [local exchange carriers] LECs may have incurred certain embedded costs reasonably before the passage of the 1996 Act, based on different regulatory regimes. Some incumbent LECs may assert that they have made certain historical investments required by regulators that they have been denied a reasonable opportunity to recover in the past and that the incumbent LECs may no longer have a reasonable opportunity to recover in the new environment of the 1996 Act. The record before us, however, does not support the conclusion that significant residual embedded costs will necessarily result from the availability of network elements at economic costs. To the extent that any such residual consists of costs of meeting universal service obligations, the recovery of such costs can and should be considered in our ongoing universal service proceeding. To the extent a significant residual exists within the interstate jurisdiction that does not fall within the ambit of section 254, we

intend to address that issue in our upcoming proceeding on access reform.[2]

U S WEST's right to recover all investment prudently incurred at the behest of regulators -- past or future -- is clear.

In its comments in this proceeding, U S WEST said that it is becoming increasingly concerned about the lack of provision by the Commission for capital recovery. The First Report and Order does not ensure such recovery, for either historic or future investment, and the Commission said that the issue would be deferred for consideration in the universal service docket. However, if a cost proxy model such as the Hatfield Model, with the design and input defects described below, is adopted by the Commission in this proceeding, any opportunity by ILECs to recover their capital costs will be unrealized and must be deferred, as the Commission said, to the next proceeding -- the access reform docket. In fact, nothing in the instant universal service docket would treat many of the existing implicit subsidies, including the Transport Interconnection Charge, below cost residential rates, excessively long depreciation lives, and subsidizing vertical features.

Moreover, based upon the Notice of Proposed Rulemaking in CC Docket No. 96-262,[3] U S WEST is concerned that the access reform docket will also not address

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[2] In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers, CC Docket Nos. 96-98, 95-185, FCC 96-325 ¶ 707, rel. Aug. 8, 1996 ("First Report and Order") (footnote omitted).

[3] See In the Matter of Access Charge Reform, Price Cap Performance Review for Local Exchange Carriers, Transport Rate Structure and Pricing, Usage of the Public

this issue. While the access reform docket recognizes the existence of interstate implicit subsidies, it proposes to generally ignore these subsidies and it may deal with them in the separations reform docket -- which will in all likelihood push many of the subsidies back into the state jurisdiction, where regulators have been unwilling to deal with even existing subsidies.[4] The course taken by this trilogy of dockets will not provide the kind of economic discipline and analysis necessary to enable U S WEST to recognize its existing investments and those investments in the future required by the government. Failure to take regulatory action to achieve this result could constitute a taking of U S WEST's property and would be subject to the proscription embodied in the Fifth Amendment to the U.S. Constitution.

Some commenters acknowledge the linkage drawn by the Commission between the universal service docket and the access reform docket. "The need for reform of the universal service system is intimately bound up with the need for

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Switched Network by Information Service and Internet Access Providers, CC Docket Nos. 96-262, 94-1, 91-213, 96-263, Notice of Proposed Rulemaking, Third Report and Order, and Notice of Inquiry, FCC 96-488, rel. Dec. 24, 1996.

[4] U S WEST agrees with the Washington Utilities and Transportation Commission's ("Washington Commission") observation: "The two primary sources of funding to maintain universal service are access charges and the implicit funding which comes from the averaging of retail local service rates. Funding universal service on the basis of access charges puts local exchange companies at a competitive disadvantage with respect to competitive access providers, including other local exchange companies. It creates a financial incentive for large telecommunications customers to bypass the incumbent local exchange company, even if the incumbent is the most efficient provider and there is no economic reason for bypass. Similarly, rate averaging creates an incentive for competitive local exchange companies to serve those customers who are less costly to serve than the average. This financial incentive is driven by the practice of rate averaging rather than whether or not it is more economically efficient for the incumbent to serve that customer group." Washington Commission at 2.

reform of the Commission's rules concerning access charges."[5] However, their interest in that linkage is not motivated by a desire to ensure recovery of their capital costs, because they have no such costs at risk. They advocate the development of support mechanisms in this proceeding which are designed to depress costs and to frustrate the ILECs' ability to recover their costs. For example, they say: "WorldCom believes that universal service support cannot be used as an indirect means of guaranteeing or protecting the market share or revenue stream of any telecommunications carrier -- especially, of course, the ILECs. In short, universal service cannot be used as a shield to protect profits, nor as a sword that unreasonably promotes one class of carriers over another."[6]

U S WEST is not alone in its concern that capital recovery must be addressed in this docket and in the access reform docket. For example, in its comments in this proceeding, SBC Communications Inc. ("SBC") said:

> The Commission should be careful that its 'Competition Trilogy' does not ignore the Commission's responsibility to meet the constitutional standard. With the Interconnection Order, the Commission adopted a forward-looking costing methodology. Even though stayed, the Commission has continued to champion that methodology and to push for forward-looking costing under Section 252(d). With the Recommended Decision, the Joint Board has also recommended the use of a forward-looking cost methodology. Interpolating from those two actions, there is likely to be an expectation that the Commission will reform access pricing by using forward-looking cost principles.
>
> Nowhere within that structure is there a recognition that incumbent LECs' costs are 'real,' and recovery must be allowed.[7]

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[5] AT&T Corp. ("AT&T") at 28.

[6] WorldCom, Inc. ("WorldCom") at 6.

[7] SBC at 51 (footnote omitted).

BellSouth Corporation and BellSouth Telecommunications, Inc. ("BellSouth") also voiced concern that the Commission's commitment to the cost recovery trilogy may ultimately prove hollow:

> Further, to the extent that actual costs of providing universal service are not recovered through the rates and charges for this service, then these costs are currently recovered through the rates of other LEC-provided services, including interstate access. Thus, these other LEC services are providing the implicit support to universal service that the new universal service fund is to address. Indeed, Section 254 directs the Commission to make universal service support explicit and sufficient. If the proxy cost model fails to account for the existing implicit support, then the Joint Board's recommendation . . . cannot lawfully be adopted by the Commission.[8]

As recently as December 26, 1996, Chairman Hundt re-affirmed the commitment to the docket trilogy:

> The universal service proceeding addresses the flip side of the golden coin of competition. How do we fund universal service when the law prohibits implicit subsidies and the evolving competitive marketplace undermines those implicit subsidies anyway? <u>We must create an economically sustainable universal service system that explicitly compensates universal service providers for the true costs of providing universal service</u>. We must create a universal service system that allows existing universal service providers -- for now, primarily incumbent LECs -- the capability to respond to competitors by reducing prices to high volume customers (the cream in the cream-skimming strategy of most new entrants), without requiring massive rate increases to other customers in order to pay for the total network. We must create a universal service system that allows companies to compete to provide universal service, so that universal service is provided with the highest quality and the lowest price possible. All this has been endorsed by unanimous vote of the Universal Service Joint Board. Now we have to write the rules that put these principles in operation.

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[8] BellSouth at 7 (footnote omitted). The NYNEX Telephone Companies ("NYNEX") also expressed concern about passing the issue of economic recovery off to the next proceeding in line. NYNEX at 36-37.

We will address both sides of this competition coin -- access reform and universal service -- by April of 1997.[9]

It is critical that the Commission come quickly to closure on how to deal with the totality of the subsidy issue, and not continue to defer meaningful consideration of subsidies to future proceedings. In point of fact, it has been held that such an approach -- "restructur[ing] an entire industry on a piecemeal basis" -- can itself be arbitrary, and that "an agency does not act rationally when it chooses and implements one policy and decides to consider the merits of a potentially inconsistent policy in the very near future."[10] The Commission is now treading perilously close to arbitrariness in the capital recovery area, and must address the issues completely and immediately. Nothing in this docket or the proposed access reform docket purports to undertake a meaningful examination of, and solution to, this issue.

III. THE COMMISSION SHOULD ADOPT A UNIFIED INTERSTATE AND INTRASTATE FUND

The Joint Board recommended a unified fund, including both interstate and intrastate revenues from interstate telecommunications carriers, as the funding base for the school/library portion of the universal service fund.[11] In its comments,

[9] Reed E. Hundt, "The Hard Road Ahead -- An Agenda for the FCC in 1997" at 5 (Dec. 26, 1996) (emphasis added).

[10] ITT World Communications, Inc. v. FCC, 725 F.2d 732, 754 (D.C. Cir. 1984).

[11] Recommended Decision ¶ 573.

U S WEST also supported this funding model for the high-cost/insular support component of the USF.[12]

Some of the commenters attack this funding model, on the grounds that it is inconsistent with Congressional intent as well as with federal/state separations precedent. For example, they contend that Congress intended for the Commission to limit the federal USF to the interstate operations of interstate carriers.[13] They argue that Section 254 prohibits the Commission from financing interstate universal service through assessments on intrastate services.[14] They say that states retain the exclusive authority to assess intrastate services and that the establishment of an intrastate USF is discretionary with the states.[15]

On the other hand, many commenters agree with the view that the Commission not only possesses authority to establish a unified fund, but that sound economic and public policies require it.[16] It is clear that Congress intended that federal universal service funds would be used to support intrastate services. Accordingly, it would undermine this very premise to exclude intrastate revenues.[17]

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[12] U S WEST at 16.

[13] NYNEX at 13.

[14] The Bell Atlantic Telephone Companies ("Bell Atlantic") at 5.

[15] Id.

[16] See, e.g., The United States Telephone Association ("USTA") at 17-19; GTE Service Corporation ("GTE") at 65-70; Pacific Telesis Group ("Pacific Telesis") at 23-24; AT&T at 5-8; Time Warner Communications Holdings, Inc. ("Time Warner") at 7-10.

[17] AT&T at 7.

Congressional intent is evidenced by Section 254(b)(4) which requires "[a]ll providers of telecommunications service" to "make an equitable and nondiscriminatory contribution to the preservation and advancement of universal service."[18] In addition, Section 254(d) provides that "[e]very telecommunications carrier that provides interstate telecommunications service shall contribute, on an equitable and nondiscriminatory basis, to the specific, predictable, and sufficient mechanisms established by the Commission to preserve and advance universal service."[19] While this language does not describe the funding base, it is clear that Congress intended a broad base of service revenues and a broad base of contributors to preserve and advance universal service.

There is a sound economic basis for adoption of a unified fund. The use of both interstate and intrastate revenues would provide a broad base of service and contributors for funding, it would distribute the costs more evenly throughout the USF system, it would minimize the burden on each subscriber, and it would permit a sufficient level of USF support.[20]

Today, ILECs separate their investments, costs, and revenues into interstate and intrastate components. However, other carriers are under no requirement to do the same. If the funding base excludes intrastate revenues, it would provide an

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[18] 47 USC § 254(b)(4).

[19] 47 USC § 254(d).

[20] GTE at 67.

obvious opportunity for carriers to game the system by designating revenues as intrastate to reduce their federal USF service obligation.[21]

Adoption of a unified fund now would also accommodate changes in the telecommunications industry. Congress and the Commission would not be required to re-address USF support almost as soon as the Commission adopts the support mechanisms. As the industry evolves within the next few years, separating revenues between interstate and intrastate services will become more difficult and increasingly meaningless. Many carriers are eager to offer a package of services to their customers for a single price. The package may consist of intrastate services, interstate services, vertical features, enhanced services, and unregulated products and services. Determining which portions of the package price are attributable or allocable only to intrastate services will become increasingly challenging and subject to creative accounting as carriers develop more innovative marketing and pricing plans to attract customers.

For all of these reasons, U S WEST urges the Commission to adopt a unified fund for universal service support implementation for schools, libraries, and high-cost areas.

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[21] Id. at 68-69; U S WEST at 19-20. See also BellSouth at 10-11; Roseville Telephone Company ("Roseville") at 3.

IV. THE COMMISSION SHOULD ADOPT RETAIL REVENUES AS THE BASE FOR ASSESSMENT OF USF CONTRIBUTIONS WHICH SHOULD BE REFLECTED AS A SURCHARGE ON THE END-USER'S BILL

A. The Base For Assessment Should Be Retail Revenues

In its comments, U S WEST urged the Commission not to adopt the Joint Board's recommendation to base the assessment of contributions on a carrier's gross revenues net of payments to other carriers.[22] Instead, U S WEST urged the Commission to adopt a method which would assess contributions on a carrier's retail revenues, because such a method would provide a more equitable assessment of all telecommunications carrier revenue and would be competitively neutral.

Many commenters agree with this analysis. Assessment "should be based on customer-specific retail revenues, not on a carrier's gross revenues net of payments to other carriers. This will guarantee that all subscribers make a fair and equitable contribution on exactly the same basis -- all retail revenues -- without giving carriers the opportunity to recover strategically their USF support obligations from select customer segments."[23] "Given the manner in which the market is evolving, with the availability of unbundled network elements and resale opportunities, the number of carriers involved in the provision of service will only increase. It will become even more difficult to track and verify payments to other carriers. The opportunities to evade the statutory requirements to contribute will increase

[22] U S WEST at 42-45.

[23] AT&T at 9.

accordingly. An assessment based on retail revenues avoids such difficulties."[24] "Because the obligation to contribute only arises through the provision of telecommunications service, then the measure of revenues should be those revenues derived from the provision of such services--i.e., retail revenues."[25] "Contributions to the universal service fund should be based on retail revenues. This would best carry out the intent of Congress, and it would ensure competitive neutrality."[26]

B. Assessments Should Be Explicit End-User Surcharges

In its comments, U S WEST urged the Commission to allow carriers to recover their contributions to the USF through a surcharge on end-users' bills.[27] Showing the amount as a surcharge will ensure that universal service support is explicit, as required by Section 254(e). Requiring carriers to mask their contributions to the fund in the rates they charge for services, assuming that they can do so, would perpetuate the current practice of implicit subsidies and support for the fund. The Act no longer permits this practice.

Other commenters agree with this analysis. "At a minimum, competitive neutrality and the need to make universal service funding explicit demand that the Commission mandate that all universal service funding (including support for education, libraries, and health care) be passed-through by all providers to customers in the form of an explicit, mandatory surcharge. Congress contemplated

[24] USTA at 16.

[25] BellSouth at 13.

[26] NYNEX at ii.

[27] U S WEST at 45-47.

that universal service support should be explicit. Absent an explicit pass-through, the funding will remain implicitly embedded in the rates paid by customers (whether end-users or carriers), thereby violating Section 254(e)."[28] "A surcharge mechanism . . . provides an explicit means for funding universal service support. As such, the surcharge is clearly consistent with the objectives of Section 254 of the Act. Employing an end user surcharge for recovery of the universal service fund obligations would be a means of spreading the recovery burden equitably without causing significant distortions in telecommunications service prices."[29]

"The USF . . . should be funded by a surcharge that is both based upon and reflected in end users' retail bills. First, the Board's finding that a mandatory end user surcharge is prohibited -- by virtue of the Act's provision that 'carriers' must contribute to universal service support -- is erroneous. It cannot be squared with the statutory command that universal service support be 'explicit.'"[30]

V. THE HATFIELD MODEL DOES NOT OFFER A REASONABLE BASIS FOR DEVELOPMENT OF AN ACCEPTABLE COST PROXY MODEL AND IT SHOULD BE REJECTED

The Joint Board recommended that the Commission adopt a proxy model, based upon forward-looking economic costs for the provision of basic telephone service, to determine support levels for universal service.[31] The Joint Board

[28] SBC at 11-12. See also NYNEX at 5; Bell Atlantic at 10.

[29] BellSouth at 15.

[30] AT&T at 8 (footnote omitted). See also AirTouch Communications, Inc. ("AirTouch") at 26; Roseville at 5.

[31] Recommended Decision ¶ 275.

concluded that the Benchmark Costing Model 2 ("BCM2") and the Hatfield Model offer the best available basis for development of an acceptable proxy model.[32]

A. Design And Input Defects Cause The Hatfield Model To Artificially Depress Costs

As U S WEST said in its comments, the Hatfield Model, by its very design, cannot identify high-cost areas which would be eligible for USF support.[33]

U S WEST described the following design and input defects with Hatfield:

- Hatfield understates drop costs
- Hatfield understates distribution facilities
- Hatfield understates the percentage of buried placement
- Hatfield understates the cost of building and installing network structures
- Hatfield understates equipment prices and overstates vendor discounts
- Hatfield uses unrealistically long depreciation lives to depress costs
- Hatfield understates taxes
- Hatfield understates the cost of capital[34]

The Hatfield Model is not a properly designed cost proxy model to target the high-cost segment of a company's customers. It artificially manipulates the design and inputs to achieve a single purpose -- to depress costs.

[32] Id. ¶ 279.

[33] U S WEST at 33.

[34] Id. at 35-41.

B. MCI Erroneously Contends That The BCM2 Does Not Meet The Joint Board's Recommended Criteria For A Cost Proxy Model

The Joint Board recommended that the Commission consider eight criteria to evaluate the reasonableness of any proxy model in this proceeding.[35] In its comments, MCI Telecommunications Corporation ("MCI") says that "[t]he Hatfield Model meets the proxy model principles listed by the Joint Board and, therefore, it should be adopted."[36]

MCI misses the relevant point about how a cost proxy model should be evaluated. The superiority of one model over another is not found in the labels it purports to use or in the number of program variables that are in an up-front user adjustable screen. The design assumptions and input data determine the validity of a model's outputs.

1. Submissions For The Federal-State Joint Board Workshops On Cost Proxy Models

On January 7, 1997, the sponsors of all models were required to file data responding to a common set of questions for a common study area (Southwestern Bell -- Texas). Sponsors were also required to list and document all equations used in their model and the source of the default values for all variables. This will allow the Commission and the public, for the first time, to make a clear side-by-side comparison. All parties will have the opportunity to analyze and test the reasonableness of data and algorithms which make up the various models.

[35] Recommended Decision ¶ 277.

[36] MCI at i.

In its comments in this proceeding, AT&T said that a new version of the Hatfield Model will be released "early in 1997."[37] U S WEST and Sprint, sponsors of the BCM2, are actively working with Pacific Bell, sponsor of Cost Proxy Model ("CPM"), to develop a model which incorporates the best aspects of both models to be referred to as the Benchmark Cost Proxy Model ("BCPM").[38] The sponsors of BCPM detailed the specifics of the model in their January 7, 1997 filing, including documenting the source of all data and all equations used in the model.

2. The BCM2 And The New BCPM Meet The Joint Board's Recommended Criteria For An Acceptable Cost Proxy Model

In its comments, MCI applauds the Hatfield Model and criticizes the BCM2. It contends that the BCM2 does not conform to the Joint Board's recommended criteria for an acceptable cost proxy model. The following comments respond to MCI's criticisms and demonstrate how the new BCPM will fulfill all of the Joint Board's recommended criteria.

Criterion #1: Technology assumed in the model should be the least-cost, most efficient and reasonable technology for providing the supported services that is currently available for purchase, with the understanding that the models will use the incumbent LECs' wire centers as the center of the loop network for the reasonably foreseeable future.[39]

[37] AT&T at 13.

[38] This model has also been referred to as the "Best of Both," "Best of Breed," or more simply "BOB."

[39] Recommended Decision ¶ 277.

MCI contends that BCM2 does not use integrated Digital Loop Carrier.[40] This is incorrect.

BCM2 uses integrated Digital Loop Carrier as well as all other cost efficient state-of-the-art network technology.

The input data for BCPM reflects a broad sampling of the costs which LECs are currently experiencing in the purchase and installation of state-of-the-art technology.

> Criterion #2: Any network function or element, such as loop, switching, transport, or signaling, necessary to produce supported services must have an associated cost.[41]

MCI contends that the Hatfield Model determines the costs of all network functions.[42] This is incorrect.

It fails to provide sufficient quantities of equipment and facilities to provide reliable and high quality telephone service to customers. The Hatfield Model does not design sufficient distribution cable or connections between feeder and distribution cable to assure that all customers will be connected to the network.

In addition to the requirement that each network function or element have a cost, it is also essential that these costs be reasonable and accurate, and that a new entrant be able to purchase and install these elements at the modeled cost. Many of

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[40] MCI at 4.

[41] Recommended Decision ¶ 277.

[42] MCI at 4.

the material and installation costs used in the Hatfield Model fall seriously short of the costs of installing a state-of-the-art network today.

BCPM will document the cost of each network function. The algorithms which assure that sufficient plant and equipment are provided are clearly documented and verifiable. In addition to the cost of providing basic universal service, BCPM will also be capable of providing the unit costs of specific network elements. This capability, combined with the accurate and verifiable data base of material and installation costs and network design assumptions, will allow for a more accurate view of the cost of these unit network elements.

> Criterion #3: Only forward-looking costs should be included. The costs should not be the embedded cost of the facilities, functions or elements.[43]

MCI contends that BCM2 uses embedded expense factors for most items.[44] This is incorrect.

The current ARMIS expense is divided by the embedded investment to yield an investment-to-expense ratio for each major investment category. This ratio is applied to the forward-looking investment value for each category to develop a proxy for forward-looking expense in BCM2. This will result in an expense which is lower than the embedded expense by the ratio that current investment is less than embedded investment.

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[43] Recommended Decision ¶ 277.

[44] MCI at 4-5.

All costs used in BCPM are based on industry-wide surveys of actual current costs of deploying and operating cost-effective, state-of-the-art technology.

> Criterion #4: The model should measure the long-run costs of providing service by including a forward-looking cost of capital and the recovery of capital through economic depreciation expenses. The long run period used should be a period long enough that all costs are treated as variable and avoidable.[45]

MCI contends that the Hatfield Model uses forward-looking costs of capital and depreciation rates.[46] This is incorrect.

The 45% debt - 65% equity structure used by the Hatfield Model is indicative of a monopoly provider of telecommunications service. The Joint Board describes forward-looking costs as costs that would be incurred by an efficient competitor entering the market.[47] The assumptions used by the Hatfield Model do not represent the assumptions which would apply to a new entrant for the following reasons: First, the cost of incremental debt and equity will be higher than those traditionally used in the telephone industry, because of the higher risk and uncertainty regarding profits and recovery of capital. Second, the Hatfield Model uses Commission-prescribed depreciation rates which have been set through the regulatory process based upon an historical review of asset lives and technology and retirements.

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[45] Recommended Decision ¶ 277.

[46] MCI at 5.

[47] Recommended Decision ¶ 270.

BCPM will use a simple module to develop capital costs. The user will be able to specify values for costs of debt and equity, debt/equity ratios, as well as depreciation and tax rates. The BCPM will use the financial methodologies that an efficient new entrant would use, such as deferred taxes; mid-year, beginning year, and end-year placing conventions; Gompertz-Makeham survivor curves; future net salvage; equal life group methods; etc. BCPM will also allow for the development of separate depreciation rates and annual charge factors for each of the USOAR Main Accounts.

> Criterion #5: The model should estimate the cost of providing service for all businesses and households within a geographic region. This includes the provision of multi-line business services. Such inclusion allows the models to reflect the economies of scale associated with the provision of these services.[48]

MCI contends that the Hatfield Model has updated the 1990 census counts for households to the 1995 estimates.[49]

BCPM will incorporate 1995 census updates and include the cost of providing business services on a cost-effective basis.

> Criterion #6: A reasonable allocation of joint and common costs should be assigned to the cost of supported services. This allocation will ensure that the forward-looking costs of providing the supported services do not include an unreasonable share of the joint and common costs incurred in the provision of both supported and non-supported services, e.g., multi-line business and toll services.[50]

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[48] Id. ¶ 277.

[49] MCI at 6.

[50] Recommended Decision ¶ 277.

BCM2 uses an historical expense-to-investment ratio applied to a forward-looking investment base to determine appropriate expenses and a reasonable allocation of joint and common costs.

BCPM provides an industry-wide composite of forward-looking operational and overhead expenses, by account, that are specifically associated with the provision of basic local exchange service. These are all easily adjusted by the user.

Criterion #7: The model and all underlying data, formulae, computations, and software associated with the model should be available to all interested parties for review and comment. All underlying data should be verifiable, engineering assumptions reasonable, and outputs plausible.

MCI contends that the source data for BCM2 expense computations are not visible or verifiable.[51] This is incorrect.

The BCM2 documentation shows that these factors are derived from ARMIS data which is perhaps the most visible and verifiable data in the industry.

The engineering assumptions used in the Hatfield Model will not provide voice grade service on longer loops that include over 18 Kft. of copper. The Hatfield Model does not incorporate long loop design features or costs in loops that exceed that length.

BCPM will be completely documented, user friendly, and easily verifiable. All model equations and logic will be clearly stated and described. Underlying data will be specifically documented and validated by actual experience in installing state-of-the-art networks and technology.

[51] MCI at 7.

Criterion #8: The model should include the capability to examine and modify the critical assumptions and engineering principles. These assumptions and principles include, but are not limited to, the cost of capital, depreciation rates, fill factors, input costs, overhead adjustments, retail costs, structure sharing percentages, fiber-copper cross-over points, and terrain factors. The models should also allow for different costs of capital, depreciation, and expenses for different facilities, functions or elements.[52]

MCI contends that most inputs to BCM2 are not user adjustable.[53] This is incorrect.

Through the EXCEL spreadsheets, a user can adjust and experiment with all aspects of the BCM2. This is verified by the fact that the Utah Public Service Commission staff was able to examine BCM2 including changes in rate of return, depreciation, cost of structures, and many other variables.

BCPM allows the user to access and model all variables in the program through easy-to-use drop-down menus or through direct access to the EXCEL spreadsheets.

BCPM provides an integrated module to develop structure costs for aerial, buried and underground installation by density group and terrain difficulty. This allows the user to vary cost of installation activities (e.g., plowing, trenching, conduit, etc.) as well as the percentage of construction activity by density zone. In addition, the user can vary the amount of an activity that can be shared between utilities, such as the placing of poles.

[52] Recommended Decision ¶ 277.

[53] MCI at 7.

BCPM provides methods to process multiple investment and expense views across multiple states. This provides the user with a great deal of flexibility in performing multiple scenario analyses.

C. Other Commenters Confirm U S WEST's View That The Design And Input Of The Hatfield Model Are Fundamentally Flawed

In its comments, SBC described similar design and input defects with the Hatfield Model.[54] "[S]ignificantly different results are obtained from the Hatfield Model when more realistic input data is used."[55] "[T]he Hatfield Model does not accurately represent the costs of providing the loop and . . . the existing model significantly understates the loop cost and therefore also understates the amount of support that would be required to maintain the level of universal service being provided today by SBC and the LEC industry."[56]

U S WEST agrees with SBC's observation that the cost proxy model selected by the Commission in this proceeding must conform to the following requirements:

> While the Joint Board suggests rather broad criteria for adopting a cost proxy model, an additional criterion should be added to the list -- the model should be able to replicate the costs experienced by incumbent LECs if the input variables reflect the equivalent values of those LECs. These costs should be used as a gauge to judge the reasonableness of the overall model and the ability of that model to provide for a fund that is 'specific, predictable and sufficient.' Unless the cost proxy model closely replicates the actual cost of providing universal service, the mechanism will not provide 'specific, predictable and sufficient' support or 'preserve and advance universal service.'[57]

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[54] SBC at 26-29.

[55] Id. at 26.

[56] Id. at 28.

[57] Id. at 28-29.